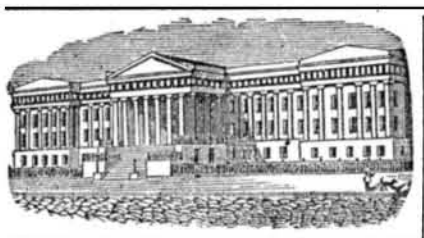

*Reported Officially for the Scientific American.*

## LIST OF PATENT CLAIMS

**Issued from the United States Patent Office**

FOR THE WEEK ENDING JANUARY 13, 1852.

SCOURING KNIVES AND FORKS—By Chrstopher Aumock, of Columbus, Ohio: I claim the construction of this machine, composed of two cylinder brushes with their peripheries in contact, which causes the friction necessary for scouring or polishing, and, at the same time, keeps the cylinder brushes, which do the work of polishing or scouring, wet with the polishing substance continually, while the machine is in motion, by immersing the underside of said brushes in the liquid, as they revolve around on their axis. The article to be scoured or polished must be held in a perpendicular position and moved up and down between the cylinder brushes, while in the act of scouring or polishing.

BLIND AND SHUTTER OPERATOR—By James R. Creighton, of Cincinnati, Ohio: I claim the sliding extension rod, provided with the bent arm or hook, groove, notch, and tooth, as described, in combination with the staple, catch, and serrated neck, fitting into a corresponding socket in the plate, whereby the shutter or blind is opened or closed by manipulation from the inside, and retained in position when opened, by the fallen bent arm in the staple, and when closed, by the introduction of the bent arm into the notch in the catch, the serrated neck with its corresponding socket in the plate preventing the bent arm from being dislodged from either position by tampering from the outside.

RUNNING GEAR OF CARRIAGES—By G. L. Haussknect, of New Haven, Ct.: I do not claim the separate use of one segment on which the end of the perch rests; neither do I claim two pivots attached to the body; but I claim placing the pivot in the rear of the forward axle, in combination with the two sets of segments, or circles, or their equivalents, as described.

CUTTING THE PILE OF PILED FABRICS—By John Johnson (assignor to Elias Johnson), of Troy, N. Y.: I claim the method of connecting the cutter, one or more, with the carrier, by means of a joint, as specified, in combination with the guide or feeler, one or more, whereby the guide or feeler is carried down to determine the position of the cutter or cutters, before it or they begin to cut, as described.

I also claim connecting the cutter or cutters and feeler or feelers with the reciprocating carriage, by means of a spring joint, substantially as specified, so that the tension of the spring, or its equivalent, shall draw the feeler or feelers against the range of loops to be cut, to insure the proper position of the cutter or cutters, relatively to the range of loops to be cut, as specified

And, finally, I claim the method of operating the cutters and guides towards and from the face of the cloth, and towards and from the lay, by connecting the ways on which the carriage runs, by arms, to the arms of a rock shaft, and to two inclined rocking joints, as specified, whether the rock shaft be operated by the means specified or the equivalents thereof.

LANTERNS—By Philos Blake, of New Haven Ct.: I claim the combination of a lantern, of any construction, with the additional appendage described, for the purpose of adapting the same to be carried on the top of the fore-arm, and of keeping it in an upright position thereon: and this I claim, whether said appendage be constructed in the particular form and manner set forth, or in any other manner, whereby the same object is accomplished by substantially the same means.

ORNAMENTAL PAINTING ON GLASS—By John W Bowers, of Brookline, Mass.: I claim, in combining with the process of painting and ornamenting, bymetallic foil, that of corrugating or crimping the foil so as to impart to the figures a power of reflecting light, so as to produce the sparkling, scintilated appearance, as specified.

DRESSING STONE—By Albert Eames, of Springfield, Mass. (assignor to C. T. Shelton, of New York City): I claim making the upper surface of the ways elastic, as described, in combinatiou with the cutter carriage, constructed and operated in the manner described.

I also claim the manner, as described, of mounting the stone carriage on wheeled axles, so that it can be elevated and depressed, in combination with the feeding platform, running on ways, as described, so that the carriage can be run on wheels, to bring stones to and remove them from the machine, and be let down on to the platform, to receive the feed motion, as described

And, finally, I clam the dogs jointed to and in combination with the jointed arms, substantially as described, so that by means of wedges, or their equivalent, the block of stone can be adjusted and secured in place, as described.

SHAKERS OF WINNOWING MACHINES—By Henry Filburn, of Dayton, Ohio: I claim the method of moving the shaker fingers, in the manner and for the purpose set forth.

IRON FENCE—By Henry Jenkins, of Cincinnati, Ohio: I claim connecting the parts of a wrought-iron fence to each other by casting iron ornaments upon them, for the purpose of ornamenting andfastening the parts together, as described.

BEVELLING PLANES—By H. W. Lewis, of Bath, N. Y.: I claim, first, the adjustable gauge bar and the vertical adjustable guide, in combination with the double faced plane-stock, all constructed and relatively arranged, as described.

Second, the combination of the guard screws and stock, adjustable guard, gauge bar, vertical guide, and plane stock, the whole being constructed and arranged as set forth.

LOOMS FOR WEAVING PILED FABRICS—By C. A. Maxfield, of Troy, N. Y.: I claim, first, the employment, on each side of the loom, of a wing, constructed substantially as described, when mounted upon either end of the lay, the rock-shaft moving independent thereof and of each other, and vibrating alternately with each other, in the arc of a circle, scribed from the said rock-shaft, and upon which are mounted the ways of the pile or figuring wires, whereby the said wires are carried to be re-inserted into the open shed, and thence forward to the last pick of the woof or weft, as described.

Second, I also claim causing the wings to recede to carry the wires to the open shed, and then advance frontward with the wires to the woven pile, alternately, by the action of the lay itself, each wing being locked to the lay, at the proper moment, and disengaged therefrom, on the insertion of the wire, by the action of the curved lever, as described.

Third, I likewise claim pivotting the ways of each wing, and furnishing the inner ends thereof with arms projecting into openings in the breast beam, whereby the ways, with the figuring wires, are made to maintain a horizontal position during the vibration of the wings, in the arc of a circle, as described.

Fourth, I also claim providing each wing with a holding lever pivotted to the frame and vibrating with the motion of the wing, and locked by means of a spring plate and pivotted arm, actuated by the advance motion of the double arms of the rock-shaft, when the wire is at rest in the warp, whereby the wing is retained steadily in its position until the withdrawal of the figuring wire.

Fifth, I also claim combining the intermediate sliding arm, horizontal rods, with the carrier and wire, whereby the middle of the latter is sustained and prevented from trembling whilst being inserted and withdrawn from the web.

MAKING SUGAR CANDY—By Bartholomew O'Brien, of Rochester, N. Y.: I claim making candy by machinery, substantially as set forth.

APPARATUS FOR ATTACHING PIECES OF METAL TO EACH OTHER BY CASTING—By H. B. Osgood, of Thompsonville, Ct.: I claim the use of movable jaws attached to the permanent parts of the flask, for the purpose of holding the steel pivots, or bearings, of levers and beams of platform scales, and other analogous articles, firmly in the exact position required for use, while the fused iron or other metal is being poured into the mould, so as to fix them securely in the lever, &c., and so that the movable jaws will readily yield to the shrinkage of the metal while cooling, and prevent any injury from straining any of the parts, when the whole is constructed, arranged, and fitted to operate substantially as described.

BUCKWHEAT FANS—By Alfred Platt, of Waterbury, Ct.: I claim the method of separating the hulls from the kernels of buckwheat, by shaking them on a table or tables, made slightly concave and rough, as specified, in combination with a current or currents of air, blown over the surface of such table or tables, to carry off the hulls, whilst the kernels are retained or held back by the form of the surface of the table or tables, as specified.

PUNCHING SHEETS OF METAL—By S. T. Sanford, of Fall River, Mass.: I claim the combination of the hinged flaps, their levers, restoring springs, and tripping studs, or equivalent mechanical contrivances, with the movable carriage, the punching cylinders or mechanism, the whole being arranged and made to operate as specified.

MOULDING IN FLASKS—By Edward Satterlee, of Albany, N. Y.: I claim making moulds in and by the alternate motions of a sifter, sliding knife to cut off the sand when the flask is filled, press. and movable bed, connected with and worked by the continuous motion of a single shaft, substantially as described.

I do not claim the sifter or press as my invention.

I also claim the moving, stopping, and starting of the bed to and from the points where the operation of sifting, filling, and pressing the sand are done, by the continuous rotary motion of a simple shaft, substantially as described.

I also claim the method of striking the surplus sand from the top of the flask, after the curb is removed, by means of a self-adjusting bar or knife, substantially as set forth.

METALLIC HEDDLES—By Jacob Senneff, of Philadelphia, Pa.: I claim casting the eye on the wire which constitutes the heddle, harness, or heald, through which the warp passes, in the manner set forth, producing a heddle much superior to any other known or used, and which will remove many of the difficulties heretofore experienced in the use of the common twisted wire heddle.

TURNING PRISMS, &c.—By Allen Sherwood & Avery Babbett, of Auburn, N. Y.: We claim the prismatic lathe herein described, consisting essentially of a rotating, cutting instrument whose cutters, in rotating, combine to describe a figure whose longitudinal sections are the counterparts of the outline of the longitudinal sections of the figure to be produced, and of a carriage to hold the block in such a position that its axis is always parallel with that of the cutting instrument, and at the same time, to move it transversely to the same, for the purpose described, and allow it to be turned on its axis at pleasure, and to be held from turning while being acted upon by the cutters.

RE-ISSUE.

PLANING MACHINES—By C. A. Spring & P. Boon, of Kensington, Pa. Originally patented July 30, 1850: We claim hinging the bed-piece at one end, and raising and lowering it at the other, in combination with the revolving cylindrical cutter, in the manner set forth.

We also claim the combination and moving of the feed rollers with the stationary ones, by the obliquelinks and gear, as described, the whole being constructed as described.

DESIGNS.

STOVES—By James Wager, David Pratt & Volney Richmond, of Troy, N. Y.

FLOOR OIL CLOTH—By James Paterson (assignor to James Albro), of Elizabethtown, N. J.

COAL STOVES—By John Burgess (assignor to Geer, Chaffee & Richmond), of Troy, N. Y.

### Dip of the Magnetic Needle.

Prof. Norton delivered a lecture before the Mechanics' Association at Providence, R. I., on Wednesday evening, the 7th inst., when he presented the following theory of the dip of the needle of the compass:—

According to his view, every particle of matter at and near the earth's surface, in the station of the needle, acts magnetically upon each of its poles, the direction of the action being always at right angles to the line conducting the particle with the pole, or lying in the circumference of a verticle circle, traced round the particle as a centre, as if a current or vortex of some subtle fluid were circulating around the particle and impelling the pole of the needle in the direction of its flow. In the action of the north pole, this direction is such as to urge it towards the north, whether the particle lies on the north or south of the station of the needle. In the action upon the south pole the direction is the reverse. The intensity of the magnetic action of a particle of terrestrial matter is conceived to be proportioned to its temperature.

### End of a Nobleman whose Progenitor Insulted Franklin.

We see it stated in some papers, that on the 30th of last month John Baron Loughborough, a British nobleman, was found dead on board of a schooner lying at a wharf, at New Orleans; he was addicted to excessive drinking, and died from the effects of this terrible habit. It is stated that he is the last of the male line of a noble house. Well, what of it? His nobility was that of king-craft; he was an ignoble *man*. It also is stated that he was the grandson of Alexander Wedderburne, the first Lord Loughborough. The old Wedderburne was a Scotchman and an Edinburgh advocate; he was once reproved by a Scottish Judge for some offensive language to the Court, and this made him quit Scotland and become a member of the English bar. His uncommon abilities soon raised him to distinction in London, he arose to be a Member of Parliament, and so won upon the English, by his clear pronunciation of the language, an exception to the Scottish Members, that he was advanced to the Ministry, and was at last made Chief Justice of the King's Bench. Under Bute's Administration he was a member of the Cabinet, and during the early troubles of our then Colonies, it was he who so atrociously abused, by his brow-beating conduct, our great and noble Franklin, when he was sent on his mission to represent the grievances of the colonies. He attained what he unscrupulously labored for—wealth, honors, and a family crest among England's nobility. There is a moral in the death of this inebriate scion of the elder Wedderburne. His death adds strong testimony to the 13th and 14th verses of the 5th chapter of Ecclesiastes:—"There is a sore evil under the sun, riches kept for the owners thereof to their hurt, they perish by travail; he begetteth a son and there is nothing in his hand." Many who have read the notices of the death of this young man in the papers, will perhaps be somewhat instructed by our remarks; for there are not many acquainted with the foregoing facts.

### Consumption of Smoke.

Last week we presented an engraving of Juke's Patent Furnace for Consuming Smoke. It is our aim to present those things to our readers which are of interest and general importance. The said furnace is highly appreciated, it seems, on the other side of the Atlantic, and out of England, the country of the inventor. Since our last number was issued, we have received a copy of the North British Mail, Scotland, from which we extract the following:—

"We had the pleasure the other day, in company with Councillor Pearson, and Mr. G. W. Muir, of paying a visit to the works of Messrs. J. & W. Crum & Co., at Thornliebank, to see in active operation a Juke's patent smoke-preventing furnace. As we have repeatedly directed the notice of both the smoking and anti-smoking sections of the public to a sample of the same article a little nearer hand (Mr. B. F. M'Cullum's Govan Croft Dye Works), it is unnecessary for us now to occupy space. It is, however, interesting for accidental reasons. It is of Scotch production entirely, having been made by Messrs. Crum themselves; and the high respectability and well known scientific character of these gentlemen is a guarantee against there being any attempt, on their part, to deceive others, or being themselves easily deceived. If it can be called such, the experiment has been completely successful, and the furnace is now working to the entire satisfaction of all concerned, there being positively not much more smoke, if indeed it amounts to so much, than may be seen from a 'well-lighted tobacco pipe.'

From the peculiarity in the fitting of the furnace at Mr. M'Cullum's, it was found that a clinkering dross did not burn well in it, and we believe the completion of the one made by Messrs. Crum, was looked for with some anxiety by the anti-smoke committee, and Mr. Muir, as affording better means of judging respecting the suitableness of various descriptions of coal than they have hitherto had. The coals we saw used were from Hurlet, and more unlikely stuff we never saw thrown into a fire. Compared with it, the dross in common use in Glasgow may be classed as round coal, and yet a fine bright fire it did make, and without producing smoke to a perceptible degree. We content ourselves by giving a few statistics that may be useful in enabling parties to form a correct judgment as to the merits and cost of this useful appliance. The furnace weighs above six tons, and is calculated to raise steam for an engine of twenty-five to thirty horse-power, according to the form and dimensions of the steam boiler under which it may be placed. The fire is spread over a surface of twenty-three square feet, the fire bars measuring four feet across, and 5 feet 9 inches from door to bridge. The boiler under which it is placed is a round one, 19 feet long, by 6 feet 6 inches in diameter, having a central flue of 30 inches diameter. Previous to the application of this patent, the steam was raised by an ordinary furnace. There has not been time to institute experiments to show the extent of saving; but it is already evident to the Messrs. Crum that the steam is better raised by the Juke's than it was by the common furnace. The boiler was formerly, at times, hardly able for the duty assigned to it, but it is now fully equal to its work."

W. Crum, one of the partners mentioned above, is one of the ablest practical chemists in the world, and for generel scientific knowledge, he stands very high.

### The Arabia Steamship.

The Cunard Line have learned something from Brother Jonathan in the construction of their new ship, which has recently been launched at Greenock, Scotland, by Messrs. Steel. The builders have moulded her much sharper than either the Asia or Africa,—thus copying after the Baltic and Pacific. She has a fine entrance and run. It is expected that she will be ready in April. She has two series of diagonal iron braces extending from stem to stern, inside, reaching from the main deck down to the bridge. The braces are three feet apart. She is to have but two masts, but will have two funnels. The engines are being constructed by Mr. R. Napier. They are of the largest size, we believe, ever put on board a vessel, the cylinders being 103 inches in diameter, with a nine feet stroke. The collective power of the two engines will be upwards of 1000 horse-power, working at a low pressure. There are to be two sets of tubular boilers placed before and abaft the engine-room, each having, of course, a separate funnel. The wheels are 37 feet diameter, with fixed wooden floats, 11 feet long by about 3½ feet broad.

The principal dimensions of the Arabiar are

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|---|---|
| Length of keel and fore-rake . . | 285 feet. |
| Length on deck . . . . . | 310 " |
| Breadth of beam . . . . . | 40·8 " |
| Depth of hold . . . . . | 27·7 " |
| Tonnage . . . . . | 2,402 tons. |

We have slightly noticed this steamer before; this embraces a more particular account of her size, &c. Her bracing is the same as that adopted in the Collins Line. Her power is greater, according to her tonnage, than any of our steamships, but there appears to be a difference in the mode of estimating the tonnage.

### How to Cook Cabbage.

Chop the half of an ordinary head very fine put it in the spider or saucepan, add two-thirds of a tea-cup of water atable-spoonful of lard, and half a teaspoonful of salt; cover and cook it from one hour and a half to two hours, giving it now and then a stirring. Then add two-thirds of a tea-cup of good vinegar, some pepper and salt sufficient to season it to taste. Let it be on the fire five minutes and serve up.

### Stearine.

This is the most solid constituent of fat; it can be obtained by mixing melted suet with six times its volume of ether, and, when cold, submitting it to a great pressure. It is very useful for many purposes.

### An Interesting International Patent Case.

Next week we will publish a most interesting patent case, relating to international patent rights, which was recently tried in England.